

**Notice of Allowability**

Application No.

10/809,021

Examiner

Minh-Chau T. Pham

Applicant(s)

EDO, RYO

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed on 1/24/07.
2. ☒ The allowed claim(s) is/are 1-11 and 13-15 (renumbered as 1-14 respectively).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

*Matthew O. Savage*  
**MATTHEW O. SAVAGE**  
**PRIMARY EXAMINER**

3-26-07

*Minh-Chau Pham*  
**Minh-Chau Pham**  
**Patent Examiner**  
**Art Unit: 1724**

***Allowable Subject Matter***

Claims 1-11 and 13-15 allowed.

The closest relevant arts are Morita et al (5,914,493) and Nanbu et al (5,725,664).

Morita et al disclose a substrate processing apparatus (Figs. 5 & 6) comprising an exposure chamber in which pressure of atmosphere is reduced to a first pressure (Fig. 5, 21, col. 4, lines 28-50), and an exposure unit (col. 4, lines 35-40) for transferring a pattern to a substrate is arranged, a load-lock chamber (23) connected to the exposure chamber, a transfer unit (col. 6, lines 19-22) which transfers the substrate to be exposed from a substrate carrier (29), supported by a carrier support (structure where the carrier rests, not numbered in Fig. 5) located out of the load-lock chamber (23) and the exposure chamber, into the load-lock chamber, wherein transfer of the substrate by transfer unit is performed under a second pressure higher than the first pressure. Between each chambers (25, 26, 25 and 23) transfer of the substrate is performed under a second pressure higher than the first pressure, as the substrate has not yet entered the load lock chamber, which is where pressure is first reduced.

Nanbu et al disclose a semiconductor wafer processing apparatus having a localized humidifier arranged on the circulation line to supply dehumidifying air to the chamber via dehumidifying inlet port (67) formed in the ceiling of chamber (42), a dehumidified air supply duct (69a) supplies dehumidified air from the outside into a dehumidified air supply duct (68) coupled to the dehumidified air inlet port (67) through a filter (69) (ULPA filter) (see 67 & 69 in Fig. 4, col. 11, line 48 through col. 12, line 45).

Claims 1-11 and 13-15 of this instant patent application differ from the disclosure of either Morita et al or Nanbu et al in that the apparatus comprises an exhaust unit which exhausts gas in the load-lock chamber wherein the dehumidifying unit forms a dehumidified atmosphere in the load-lock chamber by supplying the dehumidified gas into the load-lock chamber before the exhaust unit exhausts gas in the load-lock chamber.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh-Chau T. Pham whose telephone number is (571) 272-1163. The examiner can normally be reached on Mon/Tues/Thur/Fri 7:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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A handwritten signature in black ink, appearing to read 'Minh-Chau Pham', written in a cursive style.

**Minh-Chau Pham**

**Patent Examiner**

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**March 22, 2007**